

# **Modeling Estrogen Mimics and Ligand Binding Site**

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C. Washington

This project is an overview on the findings of estrogen in its binding site compared to estrogen mimics. This project was modeled after a paper by Michael E. Baker and Charlie Chandsawangbhuwana. Estrogen mimics are molecules that are similar structurally and functionally. Using Gaussian to calculate the lowest energy conformation of eight molecules that resemble estrogen structurally along with calculating bond length comparing to literature values is the procedure. The main mimics focused on were bisphenol A (BPA) and 4-methyl-2,4-bis(4-hydroxyphenyl)pent-1-ene (MBP) which be found in common plastics such as water bottles and DDT, a common pesticide.